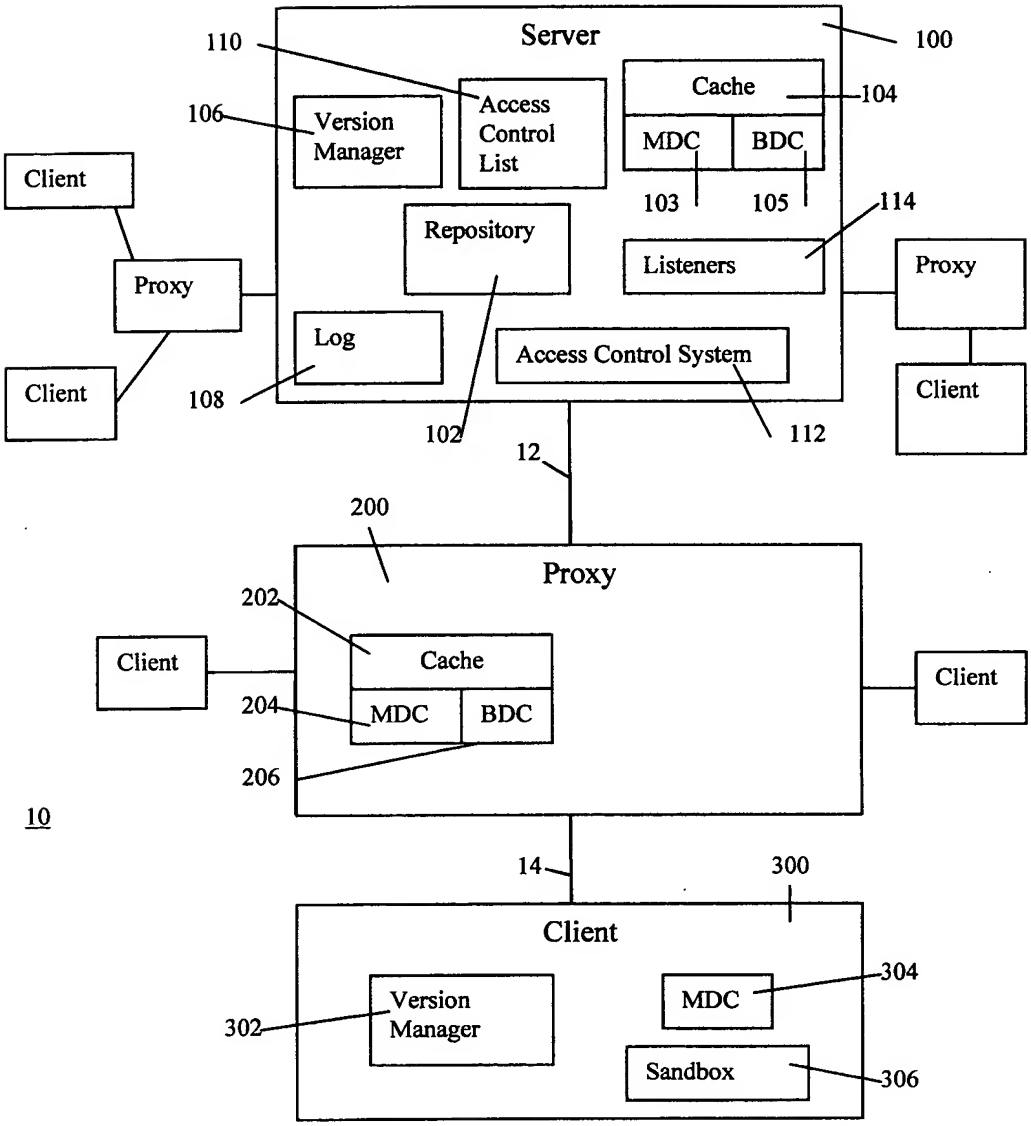
Server
100
110
Access Control List
Cache
104
106
Version Manager
MDC
BDC
103
105
Client
Repository
114
Listeners
Proxy
Proxy
Log
Access Control System
Client
Client
108
102
112
12
200
Proxy
202
Client
Cache
Client
204
MDC
BDC
206
10
14
300
Client
304
Version Manager
MDC
302
Sandbox
306

Figure 1

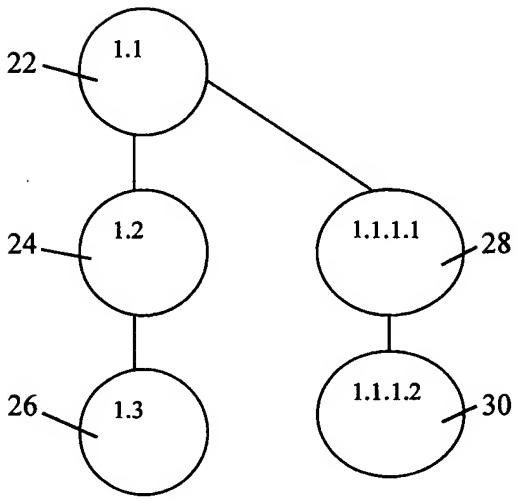

Figure 2

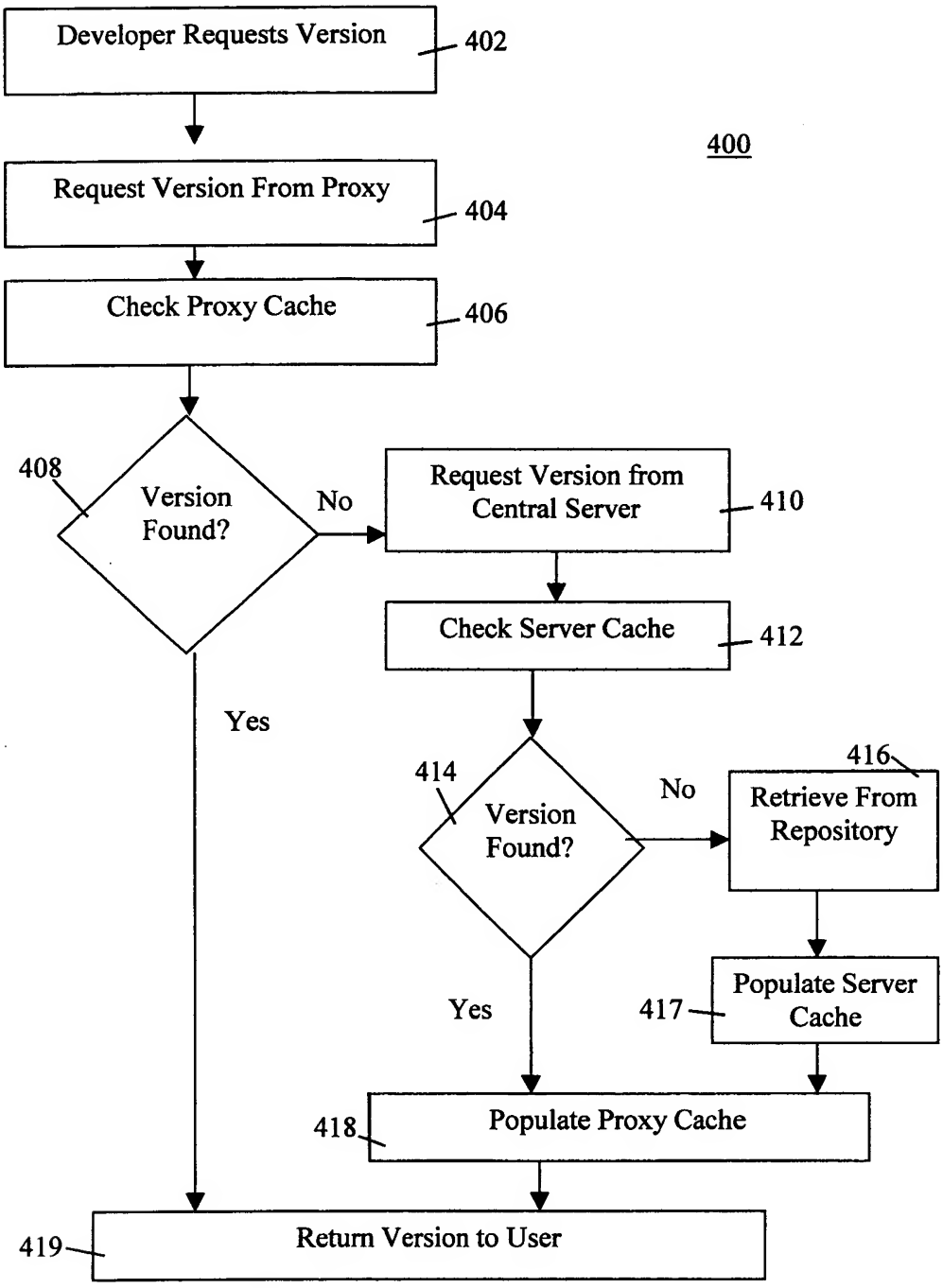
Developer Requests Version
402
400
Request Version From Proxy
404
Check Proxy Cache
406
408
Version Found?
No
Request Version from Central Server
410
Check Server Cache
412
Yes
414
Version Found?
No
416
Retrieve From Repository
Yes
Populate Server Cache
417
418
Populate Proxy Cache
419
Return Version to User

Figure 3

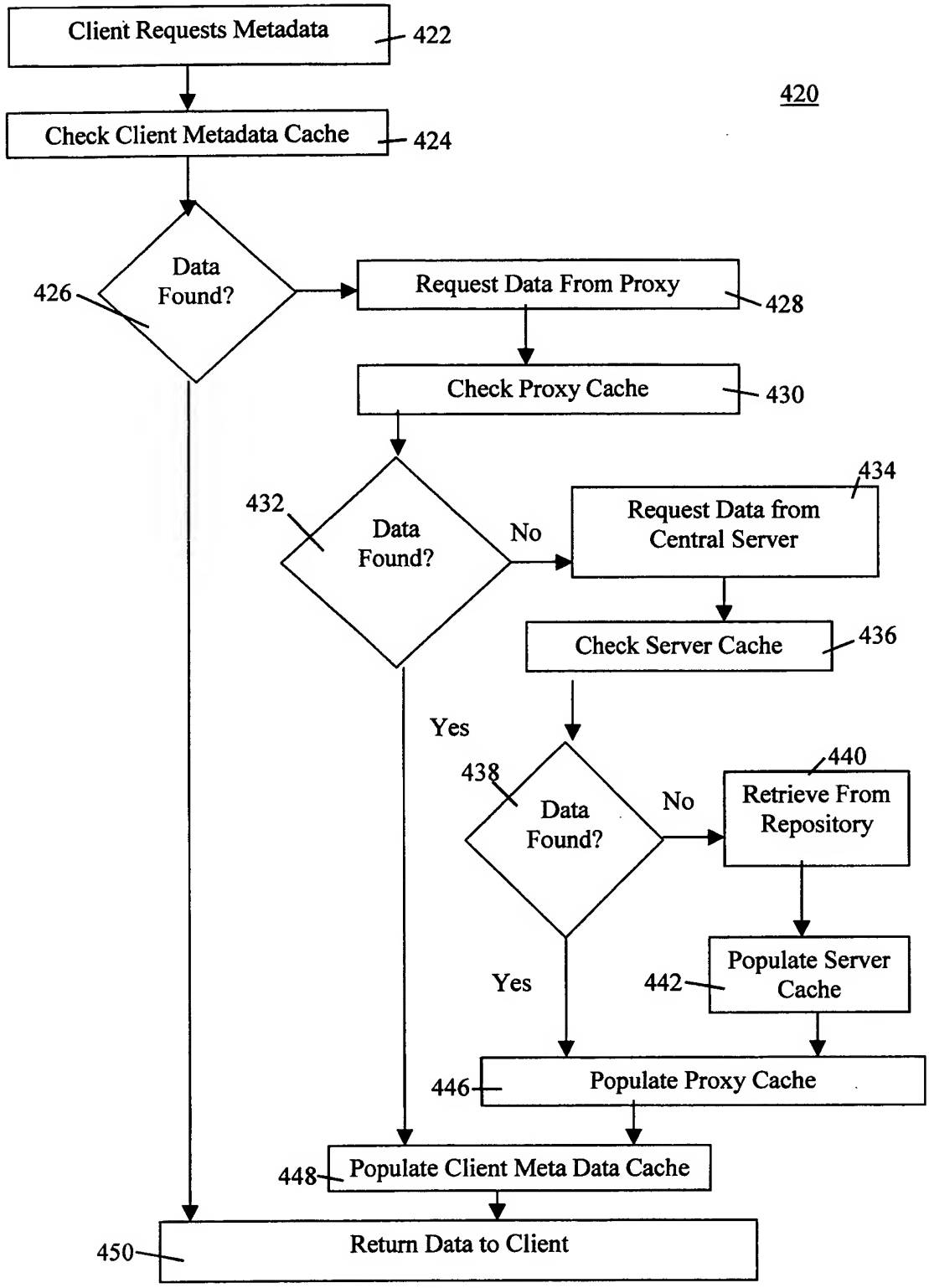
Client Requests Metadata
422
420
Check Client Metadata Cache
424
Data Found?
426
Request Data From Proxy
428
Check Proxy Cache
430
Data Found?
432
No
Request Data from Central Server
434
Check Server Cache
436
Yes
Data Found?
438
No
Retrieve From Repository
440
Yes
Populate Server Cache
442
Populate Proxy Cache
446
Populate Client Meta Data Cache
448
Return Data to Client
450

Figure 4

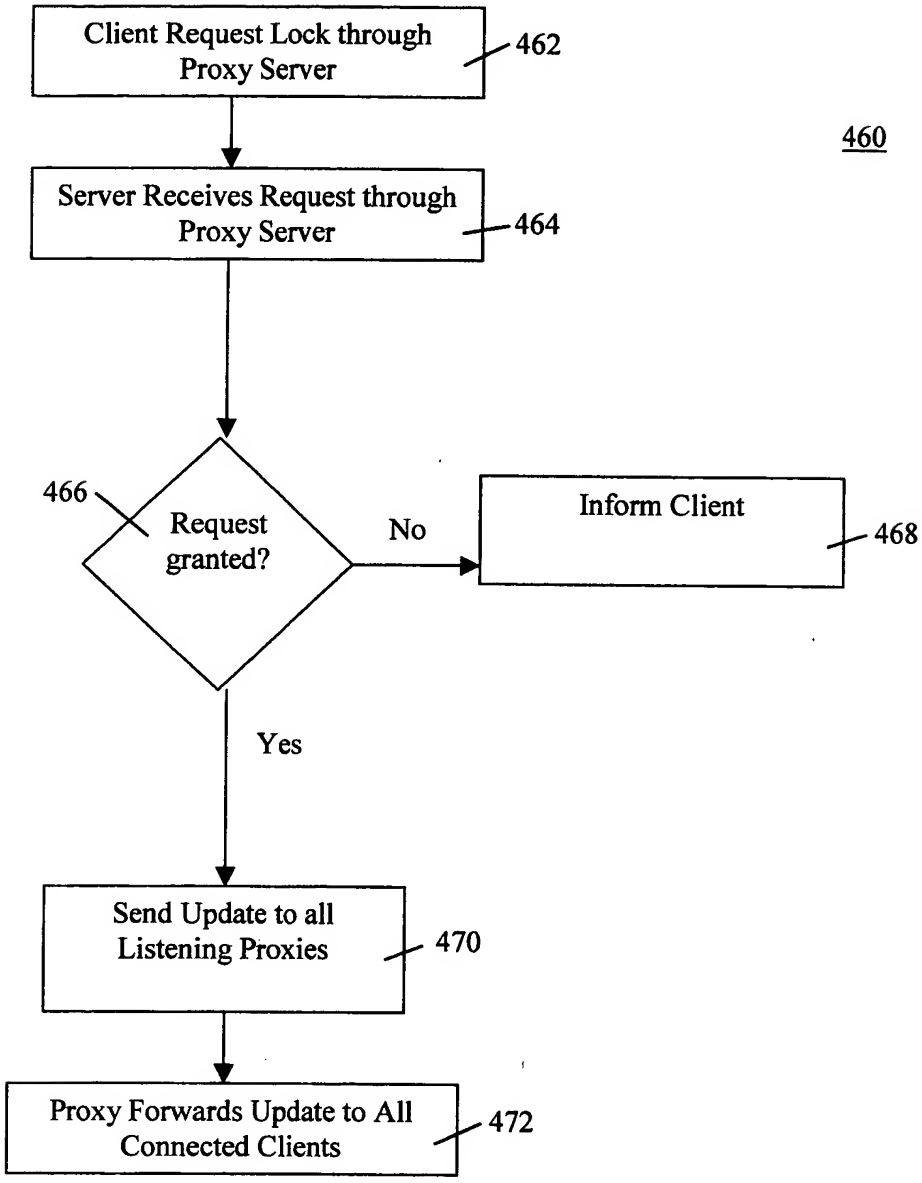
Client Request Lock through Proxy Server
462
460
Server Receives Request through Proxy Server
464
466
Request granted?
No
Inform Client
468
Yes
Send Update to all Listening Proxies
470
Proxy Forwards Update to All Connected Clients
472

Figure 5

200a

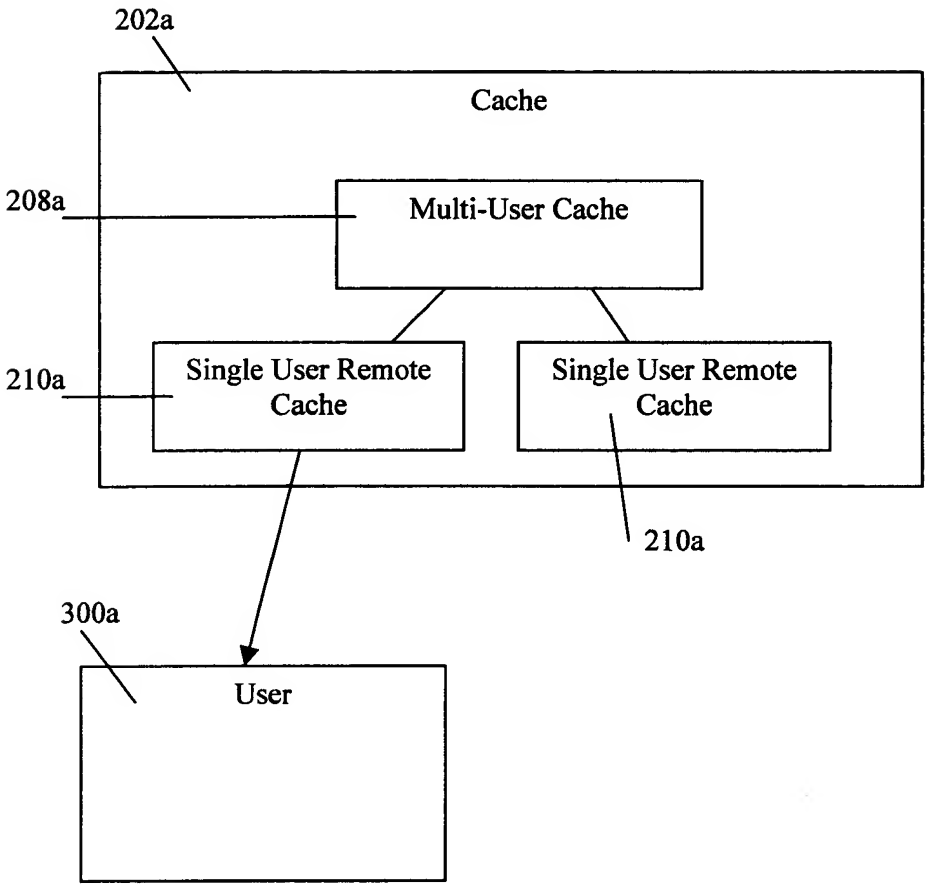

Figure 6

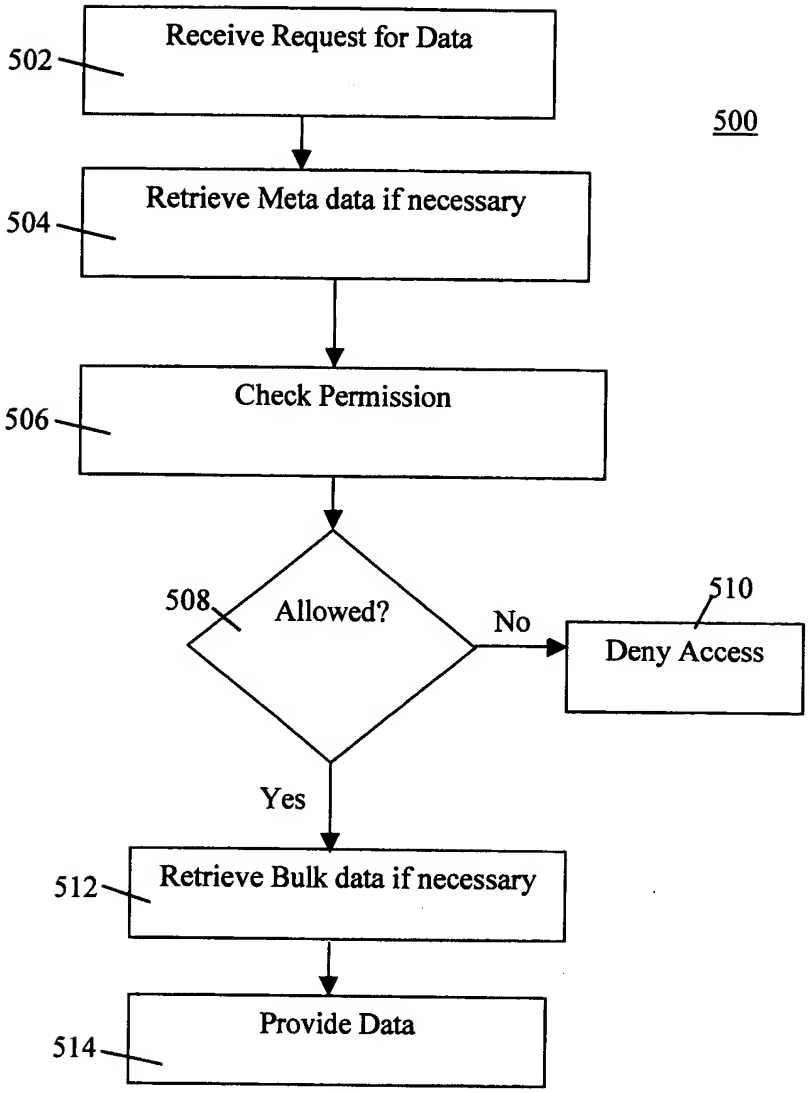
Receive Request for Data
502
500
Retrieve Meta data if necessary
504
Check Permission
506
Allowed?
508
No
510
Deny Access
Yes
Retrieve Bulk data if necessary
512
Provide Data
514

Figure 7

600

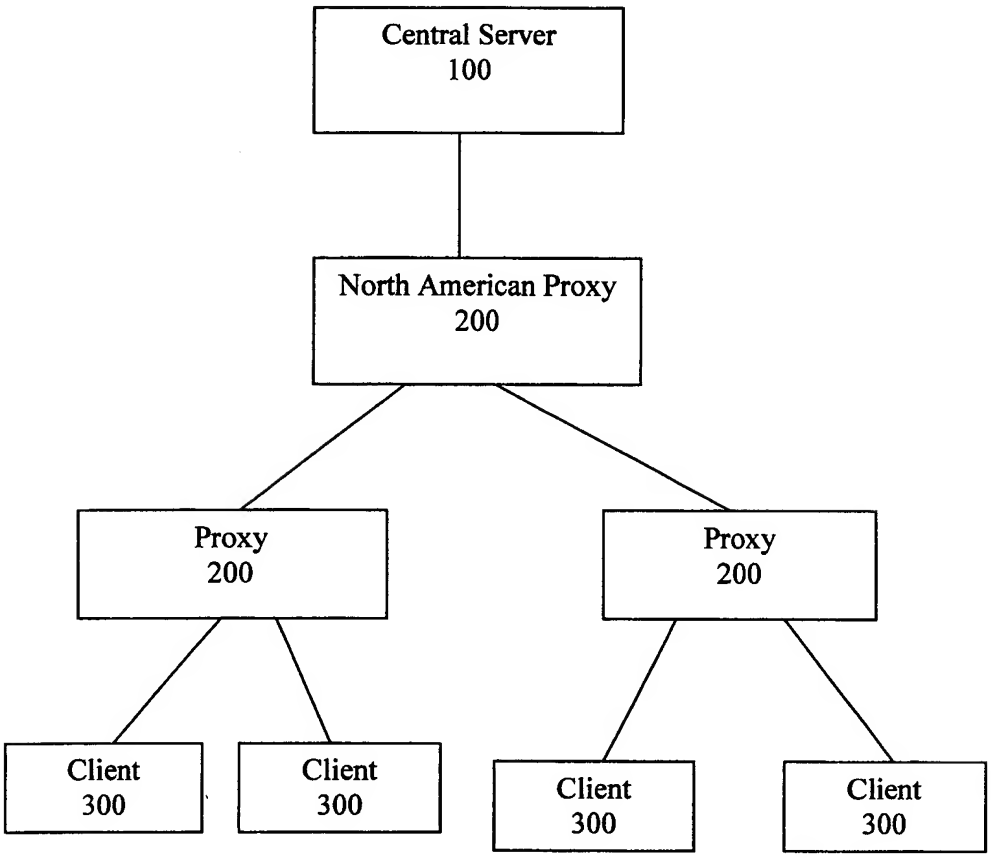
Central Server
100
North American Proxy
200
Proxy
200
Proxy
200
Client
300
Client
300
Client
300
Client
300

Figure 8